Mr. Larry Szuhy
Ertel Manufacturing Division, Dyna Gear Inc.
1436 E. 19th St.
Indianapolis, Indiana 46202

Re: FAA 097-12107-00057
First Administrative Amendment to
FESOP F097-5572-00057

Dear Mr. Szuhy:

Ertel Manufacturing Division, Dyna Gear Inc. was issued a permit on July 23, 1997 for a gray iron foundry operation. A letter requesting an addition of an Ajax Electric Arc Furnace was received on March 29, 2000. Since the PTE of the new furnace is insignificant and there is no increase in potential to emit from other affected sources, then pursuant to the provisions of 326 IAC 2-8-10(a)(14) the permit is hereby administratively amended as follows (with changes indicated in bold type):

(a) The first item of Section D.3 on Page 3 of 44 (the table of contents) has been amended to the following: **MFS-4 Electric Arc Furnace (4.5 tons per hour) and** Canopy Sanitary Baghouse over Furnace Area.

(b) Part A.2(c) of page 7 of 44 has been changed to the following: "**One (1) Electric Arc Furnace identified as Emission Unit F-7 (model Number MFS-4) which has a maximum unit capacity of 4.5 tons of metal per hour. Particulate emissions from this unit, and from the entire facility, are controlled by a shared baghouse, identified as emission unit F-3, which also collects particulate matter at the ceiling level over the foundry. F-3 exhausts out of one stack identified as S-3**"

(c) Section D.3 Unit Identification box at the top of page 33 of 44 has been changed to the following "**One (1) Electric Arc Furnace identified as Emission Unit F-7 (model Number MFS-4) which has a maximum unit capacity of 4.5 tons of metal per hour. Particulate emissions from this unit, and from the entire facility, are controlled by a shared baghouse, identified as emission unit F-3, which also collects particulate matter at the ceiling level over the foundry. F-3 exhausts out of one stack identified as S-3**"

(d) Section D.3.1 of page 33 of 44 has been amended to: Particulate emissions **from the Electric Arc Furnace identified as emission unit F-7 and particulate emissions** from the foundry area building~~, identified as emission unit F-3,~~ shall be controlled by a baghouse, **designated as emission unit F-3,** with a design flow rate of 9,837 acfm. The emission rate from the baghouse exhaust shall not exceed 0.025 gr/dscf, or 2.07 pounds per hour. Compliance with this condition will satisfy the requirements of 326 IAC 6-1-2 (e)(2), and the requirement to restrict PM-10 emissions to 99 tons per 365 day period, such that the requirements of 326 IAC 2-7 (Part 70 Operating Permit Regulation) do not apply.

All other conditions of the permit shall remain unchanged and in effect. Enclosed are calculations which show that the new equipment can conform to the same applicable requirements, terms, and conditions of the original permit. Please attach a copy of this amendment and the following revised permit

pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Mr. Dana Armstrong at (317)-327-2234.

Sincerely,

Mona A. Salem
Chief Operating Officer
Department of Public Works
City of Indianapolis

Attachments:
FAA 097-12107-00057 Cover Sheet
FAA 097-12107-00057 Revised Pages
Modified emissions calculations
DRA
cc: Mindy Hahn, IDEM OAM
Matt Mosier, Compliance Section ERMD
Lisa Adler, Permit Reviewer ERMD

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

OFFICE OF AIR MANAGEMENT

AND

ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION AIR QUALITY MANAGEMENT SECTION

Ertel Manufacturing Corporation
2045 Dr. Andrew J. Brown Avenue
Indianapolis, Indiana 46202

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 and 326 IAC 2-1-3.2, as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F097-5572-00057	
Issued by: Robert F. Holm Robert F. Holm, Ph.D., Administrator ERMD	Issuance Date: July 23, 1997

First Amendment Amendment: FAA 097-12107-00057	Pages affected:3,7,33
Issued by: Mona A. Salem Chief Operating Officer Department of Public Works City of Indianapolis	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information presented in the permit application and any information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) and ERMD and submitted to IDEM, OAM and ERMD.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a foundry operation

Responsible Official:	Mr. Dan Russell
Source Address:	2045 Dr. Andrew J. Brown Avenue, Indianapolis, Indiana 46202
Mailing Address:	2045 Dr. Andrew J. Brown Avenue, Indianapolis, Indiana 46202
SIC Code:	3321
County Location:	Marion
County Status:	Nonattainment for Total Suspended Particulates
Source Status:	Federally Enforceable State Operating Permit (FESOP) Major Source, under PSD or Emission Offset Rules;

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) Electric Arc Furnace identified as Emission Unit F-1 (model Number 4MT) which has a maximum unit capacity of 0.84 tons of metal per hour. Particulate emissions from this facility are controlled by an independent baghouse which exhausts out one stack identified as S-1.

(b) One (1) Electric Arc Furnace identified as Emission Unit F-2 (model Number 8MT) which has a maximum unit capacity of 1.47 tons of metal per hour. Particulate emissions from this facility are controlled by an independent baghouse which exhausts out one stack identified as S-2.

(c) ~~General Building Sanitary Baghouse, identified as emission unit F-3, collects particulate matter at the ceiling level over the foundry area. Particulate matter is vented to a baghouse which exhausts out one stack identified as S-3.~~
One (1) Electric Arc Furnace identified as Emission Unit F-7 (model Number MFS-4) which has a maximum unit capacity of 4.5 tons of metal per hour. Particulate emissions from this unit, and from the entire facility, are controlled by a shared baghouse, identified as emission unit F-3, which also collects particulate matter at the ceiling level over the foundry. F-3 exhausts out of one stack identified as S-3.

(d) One (1) pouring line identified as Emission Unit F-4. Emission Unit F-4 is comprised of one (1) sand muller (F-4A); one (1) general shakeout machine (F-4B), an iron pouring and cooling zone, storage tanks, conveyors, and sand handling operations (F-4C). Particulate emissions from this facility are controlled by a baghouse which exhausts out one stack identified as S-4.

(e) One (1) shot blasting machine (F-5A), holding furnace (F-5B) and a pickup hood to collect emissions from the unloading of materials from the tumbleblast machine (F-5C). This shotblast machine has a maximum unit capacity of 3.5 tons of metal per hour, the holding furnace has a maximum holding capacity of 10 tons of metal and tumbleblast machine has a maximum unit capacity of 4 tons of metal per hour. Particulate emissions from this facility are controlled by a baghouse which exhaust out one stack identified as S-5.

(f) A pickup hood to collect emissions from the loading of the tumbleblast machine (F-6). The tumbleblast machine has a maximum unit capacity of 4 tons of metal per hour. Part

SECTION D.3 FACILITY OPERATION CONDITIONS

~~General Building Sanitary Baghouse, identified as emission unit F-3, collects particulate matter at the ceiling level over the foundry area. Particulate matter is vented to a baghouse which exhausts out one stack identified as S-3.~~

One (1) Electric Arc Furnace identified as Emission Unit F-7 (model Number MFS-4) which has a maximum unit capacity of 4.5 tons of metal per hour. Particulate emissions from this unit, and from the entire facility, are controlled by a shared baghouse, identified as emission unit F-3, which also collects particulate matter at the ceiling level over the foundry. F-3 exhausts out of one stack identified as S-3.

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Particulate Matter [326 IAC 6-1-2][326 IAC 2-8]

Particulate emissions **from the Electric Arc Furnace identified as emission unit F-7 and particulate emissions** from the foundry area building~~, identified as emission unit F-3,~~ shall be controlled by a baghouse, **designated as emission unit F-3,** with a design flow rate of 9,837 acfm. The emission rate from the baghouse exhaust shall not exceed 0.025 gr/dscf, or 2.07 pounds per hour. Compliance with this condition will satisfy the requirements of 326 IAC 6-1-2 (e)(2), and the requirement to restrict PM-10 emissions to 99 tons per 365 day period, such that the requirements of 326 IAC 2-7 (Part 70 Operating Permit Regulation) do not apply.

D.3.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.3.3 Testing Requirements [326 IAC 2-8-5(1)]

Testing of this facility is not specifically required by this permit. However, this does not preclude testing requirements on this facility under 326 IAC 2-1-4(f) and 326 IAC 2-8-4).

D.3.4 Particulate Matter

Baghouse shall be in operation at all times the Electric Furnace is in operation.

D.3.5 Collection Efficiency

The Permittee shall maintain a heat resistant curtains around the bottom of the holding Furnace hood.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.6 Visible Emissions Notation

Daily visible emission notations of the process emissions from this facility shall be performed once per day during daylight hours when the process is in operation. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80% of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.3.7 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags in the Building Sanitary Baghouse. All defective bags shall be replaced.

Company Name: Ertel Manufacturing Corporation
Address City IN Zip: 2045 Andrew J. Brown Avenue
FESOP: F097-5572-00057
Plt ID: 0057
Reviewer: Patrick Coughlin
Date: 6-09-97

Furnace Operations

Unit Id	**F-1**	**Unit ID**	**F-2**	**Unit ID**	**F-3**	
Description	**4 MT Electric Arc Furnace**	**Description**	**8 MT Electric Arc Furnace**	**Description**	**Ajax Furnace and Canopy Hood**	
Type of Material Charged	**Gray Iron**	**Type of Material Charged**	**Gray Iron**	**Type of Material Charged**	**Gray Iron**	
Throughput (tons/hr)	**0.84**	**Throughput (tons/hr)**	**1.47**	**Throughput (tons/hr)**	**4.5**	
Control Devise	**Baghouse**	**Control Device**	**Baghouse**	**Control Device**	**Baghouse**	
Est. PM control efficiency	**0.999**	**Est. PM control efficiency**	**99.90%**	**Est. PM control efficiency**	**99.00%**	
stack I.D.	**S-1**	**stack I.D.**	**S-2**	**stack I.D.**	**S-3**	
stack flowrate (acfm)	**11920**	**stack flowrate (acfm)**	**27410.00**	**stack flowrate (acfm)**	**9837.00**	
stack temp (f)	**100**	**stack temp (f)**	**105**	**stack temp (f)**	**100**	estimate
stack flowrate (dscfm)	**11324.00**	**stack flowrate (dscfm)**	**25837.64**	**stack flowrate (dscfm)**	**9345.15**	
Total Throughput (tons/hour)	**6.81**					

Ertel Manaufacturing has requested, in a March 22, 1996 letter, that the maximum operating capacity of these furnaces be limited to .84 tons/hr and 1.47 tons per hour for the 4MT and 8MT electric arc furnaces, respectively.

	Capture Efficiency	**Fugitive Emissions %**
F-1 4MT Furnace Emissions	**99.00%**	**1.00%**
F-2 8MT Furnace Emissions	**99.00%**	**1.00%**
F-3 Ajax Furnace Emissions	**99.00%**	**1.00%**

Stack Test Data

Stack Test Data	**Emitting unit**	**results for any one run (lbs/hr)**	**Throughput during test (tons/hr)**	**Calculated emission factor (lbs/ton)**	**Calculated emission factor (gr/dscf)**	
Stack Test Data ,12/93 (PM)	**F-1**	**0.22**	**1.2**	**0.18**	**0.002**	
Stack Test Data, 10/95 (SO2)	**F-1**	**0.28**	**0.7**	**0.40**	NA	
Stack Test Data, 12/95 (NOx)	**F-1**	**0.5**	**0.7**	**0.71**	NA	
Stack Test Data, 12/95 (CO)	**F-1**	**3.2**	**0.7**	**4.57**	NA	
Stack Test Data ,12/93 (PM)	**F-2**	**1.6**	**2.67**	**0.60**	**0.007**	
Stack Test Data, 10/95 (SO2)	**F-2**	**0.26**	**1.2**	**0.22**	NA	
Stack Test Data, 12/95 (NOx)	**F-2**	**3.7**	**1.8**	**2.06**	NA	
Stack Test Data, 12/95 (CO)	**F-2**	**3.9**	**1.2**	**3.25**	NA	
Stack Test Data, **/(PM)**	**F-3**				**0.0000**	Need Stack Data
Stack Test Data, **/(SO2)**	**F-3**					Need Stack Data
Stack Test Data, **/(NOx)**	**F-3**					Need Stack Data
Stack Test Data, **/(CO)**	**F-3**					

Proposed PM/PM-10 Emissions Limitations for F-1 and F-2 established to limt plant wide PM-10 emissions to less than 100 tons per year.

	Emitting Units	**gr/dscf**
PM-10/PM (gr/dscf)	**F-1**	**0.025**
	F-2	**0.025**
	F-3	**0.025**

Pollutant	**PM**	**PM10**	**SOx**	**NOx**	**VOC**	**CO**
Source of Emissions Factors	**SCC# 3-04-003-04**	**SCC# 3-04-003-04**	**stack test**	**stack test**	**SCC# 3-04-003-04**	**stack test**
Units	**lbs/ton Produced**	**lbs/ton Produced**	**lbs/ton Produced**	**lbs/ton metal melted**	**lbs/ton Produced**	**lbs/ton metal melted**
Electric Arc Factor (F-1 and F-2)	**12.7**	**11.4**	**0.4**	**2.06**	**0.18**	**4.57**
Induction Furnace Factor (F-3)	**0.9**	**0.9**	**0**	**0**	**0**	**0**
Potential to Emit	Calculated Throughput*Emission Factor					
lbs/hr (F-1)	10.67	9.58	0.34	1.73	0.15	3.84
lbs/day (F-1)	256.03	229.82	8.06	41.44	3.63	92.13
tons/yr (F-1)	46.73	41.94	1.47	7.56	0.66	16.81
lbs/hr (F-2)	18.67	16.76	0.59	3.02	0.26	6.72
lbs/day (F-2)	448.06	402.19	14.11	72.52	6.35	161.23
tons/yr (F-2)	81.77	73.40	2.58	13.23	1.16	29.42
lbs/hr (F-3)	4.05	4.05	0.00	0.00	0.00	0.00
lbs/day(F-3)	97.20	97.20	0.00	0.00	0.00	0.00
tons/yr (F-3)	17.74	17.74	0.00	0.00	0.00	0.00
Limted Potential to Emit	Calculated dscf*grain loading					
lbs/hr F-1	2.43	2.43	0.34	1.73	0.15	3.84
lbs/day F-1	58.24	58.24	8.06	41.44	3.63	92.13
tons/yr F-1	10.63	10.63	1.47	7.56	0.66	16.81
lbs/hr F-2	0.09	**0.09**	0.59	3.02	0.26	6.72
lbs/day F-2	**2.27**	**2.27**	14.11	72.52	6.35	161.23
tons/yr F-2	0.41	0.41	2.58	13.23	1.16	29.42
lbs/hr F-3	2.00	2.00	0.00	0.00	0.00	0.00
lbs/day F-3	**48.06**	**48.06**	0.00	0.00	0.00	0.00
tons/yr F-3	8.77	8.77	0.00	0.00	0.00	0.00

Unit ID	**F-4**	**Control Device**	**Baghouse**
Description	**Disamatic Pouring/Cooling/Shakeout/Sand Handeling**	**Est. PM control efficiency**	**99.90%**
Type of Material Charged	**Gray Iron**	**stack I.D.**	**S-4**
Throughput (tons metal /hr) 1	**5.1**	**stack flowrate (acfm)**	**39845.00**
(tons of sand handeled) 1	**33.8**	**stack temp (f)**	**75**
Proposed PM-10 limit (gr/dscf)	**0.025**	**stack flowrate (dscfm)**	**39391.48**
Stack Test (lbs/hr)	**2.13**		
(gr/dscf)	**0.0072**		
Date of Stack Test	**6/94**		

1 - maximum throughput experienced during 1993 stack test

Ertel Manufacturing does not use any cores, magnesium treatment, or refining consequently the emission factor for these activities were not incorporated into the emissions calculation for this facility.

The metal from the furnaces are poured into a holding pot therefore the

Pollutant	**PM**	**PM10**	**SOx**	**NOx**	**VOC**	**CO**
Source of Emissions Factors	**lbs/ton metal charged**	**lbs/ton metal charged**	**lbs/ton metal charged**	**lbs/ton metal charged**	**lbs/ton metal charged**	**lbs/ton metal charged**
SCC# 3-04-003-20 (pouring\casting)	4.2	2.06	0.02	0.01	0.14	--
SCC# 3-04-003-25 (casting cooling)	--	1.4	--	--	--	--
SCC# 3-04-003-31 (shakeout)	3.2	2.24	--	--	1.20	--
Sum of Emission Factors	7.4	5.7	0.02	0.01	1.34	--

Pollutant	**PM**	**PM10**	**SOx**	**NOx**	**VOC**	**CO**
Source of Emissions Factors	**lbs/ton sand handeled**	**lbs/ton sand handeled**	**lbs/ton sand handeled**	**lbs/ton sand handeled**	**lbs/ton sand handeled**	**lbs/ton sand handeled**
SCC# 3-04-003-50 (sand handeling)	0.65	0.54	--	--	--	--

Potential to Emit						
lbs/hr	59.71	47.32	0.10	0.05	6.83	--
lbs/day	1433.04	1135.73	2.45	1.22	164.02	--
tons/year	261.53	207.27	0.45	0.22	29.93	--

Limited Potential toEmit						
lbs/hr	8.44	8.44	0.10	0.05	6.83	--
tons/yr	36.97	**36.97**	0.45	0.22	29.93	--

Unit ID	**F-5 A, B, and C**	**Control Device**	**Baghouse**
Description	**Shotblast, Holding Furnace and Part of Tumble Blast**	**Est. PM control efficiency**	**99.90%**
Type of Material Charged	**Gray Iron**	**stack I.D.**	**S-5**
Shotblast Throughput (tons/hr)	**3.5**	**stack flowrate (acfm)**	**8286.00**
Holding Furnace Capacity (tons)	**10**	**stack temp (f)**	**68**
Tumbleblast Throughput (tons/hr)	**4**	**stack flowrate (dscfm)**	**8258.83**
Proposed PM-10 limit (gr/dscf)	**0.025**		

(reported in permit application submitted on June 15, 1993)

	PM	**PM10**	**SOx**	**NOx**	**VOC**	**CO**
Source of Emissions Factors	**lbs/ton metal produced**	**lbs/ton metal produced**	**lbs/ton metal produced**	**lbs/ton metal produced**	**lbs/ton metal produced**	**lbs/tons metal produced**
SCC# 3-04-003-40 (Grinding/Cleaning)	17	1.7	0.00	0.00	0.00 0.005	0.00

Potential to Emit						
lbs/hr	59.50	5.95	0.00	0.00	0.00	0.00
lbs/day	1428.00	142.80	0.00	0.00	0.00	0.00
tons/yr	260.61	26.06	0.00	0.00	0.00	0.00

Limited to Potential to Emit						
lbs/hr	**1.77**	**1.77**	**0.00**	**0.00**	**0.00**	**0.00**
tons/yr	7.75	7.8	**0.00**	**0.00**	**0.00**	**0.00**

Unit ID	**F-6**	**Control Device**	**Baghouse**
Description	**Casting Finishing Tumbleblast**	**Est. PM control efficiency**	**99.90%**
Type of Material Charged	**Gray Iron**	**stack I.D.**	**S-6**
Throughput (tons/hr)	**4**	**stack flowrate (acfm)**	**2730.00** (reported in permit application submitted on June 15, 1993)
Proposed PM-10 limit (gr/dscf)	**0.025**	**stack temp (f)**	**68**
		stack flowrate (dscfm)	**2730.00**

Source of Emissions Factors SCC# 3-04-003-40 (Grinding/Cleaning)	**PM** **lbs/ton metal produced** 17	**PM10** **lbs/ton metal produced** 1.7	**SOx** **lbs/ton metal produced** 0.00	**NOx** **lbs/ton metal produced** 0.00	**VOC** **lbs/ton metal produced** 0.00	**CO** **lbs/tons metal produced** 0.00
lbs/hr	68.00	6.80	0.00	0.00	0.00	0.00
lbs/day	1632.00	163.20	0.00	0.00	0.00	0.00
tons/yr	297.84	29.78	0.00	0.00	0.00	0.00
lbs/hr	**0.59**	**0.59**	**0.00**	**0.00**	**0.00**	**0.00**
tons/yr	**2.56**	2.56	**0.00**	**0.00**	**0.00**	**0.00**

Unit ID	**F-7**		
Description	**Grinding**		
Type of Material Charged	**Gray Iron**		
Throughput (tons/hr)	**4**		

Source of Emission Factors AP-42 Table 12.10-6 (Emitted to Atmosphere)	**PM** **lbs/ton metal produced** 0.1	**PM10** **lbs/ton metal produced** 0.1	**SOx** **lbs/ton metal produced** 0.00	**NOx** **lbs/ton metal produced** 0.00	**VOC** **lbs/ton metal produced** 0.00	**CO** **lbs/tons metal produced** 0.00
Potential to Emit						
lbs/hr	0.40	0.40	0.00	0.00	0.00	0.00
lbs/day	9.60	9.60	0.00	0.00	0.00	0.00
tons/yr	1.75	1.75	0.00	0.00	0.00	0.00
Limited Potential to Emit						
lbs/hr	**0.40**	**0.40**	**0.00**	**0.00**	**0.00**	**0.00**
tons/yr	1.75	1.75	0.00	0.00	0.00	0.00

Unit ID	
Description	**Fugitive Emissions from Handling of Charge Material**
Type of Material Charged	**Gray Iron**
Throughput (tons/hr)	**6.81**

Source of Emissions Fators	**PM** Lbs/ton of metal charged	**PM-10** Lbs/ton of metal charged	**SOx** Lbs/ton of metal charged	**NOx** Lbs/ton of metal charged	**VOC** Lbs/ton of metal charged	**CO** Lbs/ton of metal charged
Charge Handling SCC# 3-04-003-15	0.6	0.36	---	---	---	---
Potential to Emit						
lbs/hr	4.09	2.45	---	---	---	---
lbs/day	98.06	58.84	---	---	---	---
tons/yr	17.90	10.74	---	---	---	---
Limited Potential to Emit						
lbs/hr	4.09	2.45	---	---	---	---
tons/yr	17.90	10.74	---	---	---	---
Fugitive Emissions						
F-1 tons/yr	0.47	0.42	0.01	0.08	0.01	0.17
F-2 tons/yr	0.82	0.73	0.03	0.13	0.01	0.29
F-3 tons/yr	0.18	0.18	0.00	0.00	0.00	0.00

Total Source Wide Emissions

Potential to Emit (tons/yr)	968.12	390.95	4.49	21.02	31.75	46.24
Limited Potential to Emit (tons/yr)	88.21	80.92	4.53	21.23	31.77	46.70

Insignificant Emitting
Two 4.4 MMBtu/hr boilers
Total firing rate MMcf/hr 0.0088

SCC # 10100602 PM-10
3 lbs/MMcf 0.115632
0.5280528

HAP Emissions Estimates

Tons of Metal Charged 2.31
Megagrams of Metal Charged 2.0955858
Conversion Factor (megagrams to tons) 0.90718
Source of Emissions Factors Emission Factors for Iron Foundries-- Criteria and Toxic Pollutants EPA-600/2-90-044

Emissions Factors Inorganic Compounds	Electric Arc Furnace mg/Mg	Inoculation mg/Mg	Pouring mg/Mg
Arsenic Coupounds	0	26.8	0.1
Beryllium Compounds	0	0.02	0.04
Cadmium Compounds	1654	1.5	0.8
Chromium Compounds	97	4	66
Cobalt Compounds	0	0.1	0.35
Lead Compounds	323	56	11

Facility ID	**F-3**					
Description	**Grinding**					
Type of Ma	**Gray Iron**					
Throughpu	**4**					
of Emission F	**PM**	**PM10**	**SOx**	**NOx**	**VOC**	**CO**
.10-6 (Emitted	**on metal prod**	**on metal prod**	**on metal prod**	**on metal prod**	**on metal prod**	**ns metal produced**
	0.1	0.1	0.00	0.00	0.00	0.00
Potential to Emit						
lbs/hr	0.40	0.40	0.00	0.00	0.00	0.00
lbs/day	9.60	9.60	0.00	0.00	0.00	0.00
tons/yr	1.75	1.75	0.00	0.00	0.00	0.00
Limited Potential to Emit						
lbs/hr	**0.40**	**0.40**	**0.00**	**0.00**	**0.00**	**0.00**
tons/yr	1.75	1.75	0.00	0.00	0.00	0.00

Facility ID	**Fugitive Emissions from Handling of Charge Material**					
Throughpu	**2.31**					
	PM	**PM-10**	**SOx**	**NOx**	**VOC**	**CO**
Source of En	of metal ch	of metal ch	of metal ch	of metal ch	of metal ch	of metal charged
Charge Han	0.6	0.36	---	---	---	---
Potential to						
lbs/hr	1.39	0.83	---	---	---	---
lbs/day	33.26	19.96	---	---	---	---
tons/yr	6.07	3.64	---	---	---	---
Limited Pote						
lbs/hr	1.39	0.83	---	---	---	---
tons/yr	6.07	3.64	---	---	---	---

Total Source Wide Emissions

Potential to Er	956.30	383.85	4.49	21.02	31.75	46.24
Limited Poten	100.33	97.77	4.49	21.02	31.75	46.24

Insignificant Emitting

Two 4.4 MMBtu/hr boilers
Total firing rate 0.0088

SCC # 10100(PM-10
3 lbs/MMcf 0.115632
0.5280528

HAP Emissions Estimates

Tons of Met 2.31
Megagrams 2.095586
Conversion Fa 0.90718
Source of Emi Emission Factors for Iron Foundries-- Criteria and Toxic Pollutants EPA-600/2-90-044

Emissions Fac	ctric Arc Furna	Inoculation	Pouring
Inorganic Com	mg/Mg	mg/Mg	mg/Mg
Arsenic Coupc	0	26.8	0.1
Beryllium Com	0	0.02	0.04
Cadmium Con	1654	1.5	0.8
Chromium Coı	97	4	66
Cobalt Compo	0	0.1	0.35
Lead Compou	323	56	11
Manganese C(	65	56	66
Mercury Comp	36	22	11
Nickle Compoı	0	0.31	25
Selenium Cou	0	5.8	0.1

Conversion Fa 2.2046E-06

Potential En	ctric Arc Furna	Inoculation	Pouring
Inorganic Com	tons/yr	tons/yr	tons/yr
Arsenic Coupc	0.00E+00	0.00E+00	0.00E+00
Beryllium Com	0.00E+00	0.00E+00	0.00E+00
Cadmium Con	0.00E+00	0.00E+00	0.00E+00
Chromium Coı	0.00E+00	0.00E+00	0.00E+00
Cobalt Compo	0.00E+00	0.00E+00	0.00E+00
Lead Compou	0.00E+00	0.00E+00	0.00E+00
Manganese C(	0.00E+00	0.00E+00	0.00E+00
Mercury Comp	0.00E+00	0.00E+00	0.00E+00
Nickle Compoı	0.00E+00	0.00E+00	0.00E+00

Selenium Cou	0.00E+00	0.00E+00	0.00E+00